



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/686,502	10/11/2000	Patrick Maguire	34648-00438USPT	5785

27045 7590 07/13/2004  
ERICSSON INC.  
6300 LEGACY DRIVE  
M/S EVR C11  
PLANO, TX 75024

EXAMINER

PHAN, MAN U

ART UNIT PAPER NUMBER

2665

DATE MAILED: 07/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/686,502

Applicant(s)

MAGUIRE ET AL.

Examiner

Man Phan

Art Unit

2665

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10/11/2000.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 and 37-48 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 and 37-48 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 October 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>4</u> . | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. The application of Maguire et al. for an "IP-based station system" filed 10/11/2000 has been examined. Responsive to the restriction requirement filed on 04/23/2004, affirmation of the election has been made by applicant, and a provisional election was made without traverse to prosecute the invention of group I, claims 1-12 and 37-48. Claims 13-36 are withdrawn from further consideration by the Examiner, 37 C.F.R. ' 1.142(b), as being drawn to a non-elected invention. Claims 1-12 and 37-48 are pending in the application.

### ***Drawings***

2. Figures 1 & 2 should be designated by a legend such as "Prior Art" because only that which is old is illustrated. See MPEP ' 608.02(g).

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: Reference characters (218), (220), (222) as shown in Fig. 2.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC ' 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 1038 and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1-12 and 37-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wilhelmsson et al. (US#6,317,421) in view of Balazinski et al. (US#6,711,143).

With respect to claims 1-12 and 37-40, both Wilhelmsson et al. (US#6,317,421) and Balazinski et al. (US#6,711,143) disclose a novel system for sending data in a mobile communications networks having member stations arranged in IP-based and configuring an interface between a serving GPRS support node and a BSS, according to the essential features of

Art Unit: 2665

the claims. Wiolhelmsson et al. (US#6,317,421) discloses in Figs 1 & 4 illustrated the configuration of a cellular network supporting GPRS, in which in response to a request for allocation of a new network service entity identifier, the new network service entity identifier is automatically allocated according to a predefined rule ensuring that the new network service entity identifier is unique within the serving GPRS support node. The data structures in the serving GPRS support node and the base station system are automatically initiated by registering the allocated new network service entity identifier in the data structures (Col. 1, lines 41 plus). Figs. 2&3 illustrated block diagrams of the network interface between GPRS support node (SGSN) and BSS supporting IP, wherein the Gb interface includes a BSS GPRS Protocol (BSSGP) layer in which peer functional entities in the base station system and the serving GPRS support node (SGSN) communicate via a BSSGP Virtual Connections (BVCs). Each BSSGP Virtual Connection (BVC) is identified by a combination of a BSS Virtual Connection Identifier (BVCI) and a Network Service Entity Identifier (NSEI). In the BSSGP protocol layer, a key concept is the so called BSSGP Virtual Connections (BVCs) which provide communication paths between BSSGP functional entities. Each BVC is used in the transport of BSSGP PDUs between peer point-to-point (PTP) functional entities, peer point-to-multipoint (PTM) functional entities and peer signaling functional entities. A PTP functional entity is responsible for PTP user data transmission. There is one PTP functional entity per cell. A PTM functional entity is responsible for PTM user data transmission. There is only one PTM functional entity per network service entity and there is one or more network service entities per BSS. A signaling functional entity is responsible for other functions e.g. paging. There is only one signaling entity per network service entity and there is one or more network service entities per BSS. Each BVC

Art Unit: 2665

is identified by means of a BSSGP Virtual Connection Identifier (BVCI) which has end-to-end significance across the Gb interface. Each BVCI is further unique within two peer Network Service entities (NSEs) in the Network Service protocol layer. Each network service entity is identified by means of a Network Service Entity Identifier (NSEI). The NSEI together with the BVCI uniquely identifies a BSSGP Virtual connection within an SGSN. BVCI value zero identifies a BVC BSSGP Virtual connection providing communication between peer signaling functional entities, BVCI value one identifies a BSSGP Virtual connection providing communication between peer PTM functional entities, while BVCI values greater than one identifies BSSGP Virtual connections providing communication between peer PTP functional entities. In order to minimize the impact on the BSSGP protocol layer when adding IP support, it is essential to maintain the BVC concept and since unique identification of a BVC requires a combination of both a BVCI and a NSEI, the Gb interface must continue supporting the use of BVCI and NSEI (Col. 4, lines 5 plus).

In the same field of endeavor, Balazinski et al. (US#6,711,143) discloses a system and method in a General Packet Radio Service (GPRS) network for interfacing a Base Station System (BSS) and a Serving GPRS Support Node (SGSN). A protocol stack in the BSS and the SGSN includes a User Datagram Protocol (UDP) layer over an Internet Protocol (IP) layer. Data packets are transmitted between functional entities in the SGSN and the BSS over a connectionless IP network. The protocol stack includes a Base Station System GPRS Protocol (BSSGP) protocol layer that provides radio-related, Quality-of-Service (QoS), and routing information that is required to transmit user data between the BSS and the SGSN. The stack also includes a modified Network Services (NS') layer which is divided into an upper NS'-Network

Art Unit: 2665

Service Control (NS'-NSC) sub-layer and a lower NS'-Sub-Network Service (NS'-SNS) sub-layer. The NS'-NSC sub-layer maps to the BSSGP layer and manages fictional entities therein. The NS'-SNS sub-layer maps to the UDP and IP layers and provides access to the IP network. A single UDP port is reserved to make the NS layer and the BSSGP layer act as an application over the IP stack (Col. 2, lines 16 plus).

Regarding claims 41-48, they are method claims corresponding to the apparatus claims 1-12 and 37-40 above. Therefore, claims 41-48 are analyzed and rejected as previously discussed with respect to claims 1-12, 37-40.

One skilled in the art would have recognized the need for effectively and efficiently configuring Network Service Entity Identifiers utilizing Gb over IP interface in a GPRS network, and would have applied Balazinski's novel use of a protocol stack in the BSS and the SGSN that includes a UDP layer over a connectionless IP network into Wilhelmsson' configuring an interface between a serving GPRS support node and a BSS. Therefore, It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to apply TBalanzinski's system and method in a GPRS network for interfacing base station system with a serving GPRS support node into Wilhelmsson' method in a communication network with the motivation being to provide a IP-based BSS architecture for GPRS/EDGE applications.

### *Conclusion*

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The Chakrabarti et al. (US#6,678,281) is cited to show the hardware configuration, support node and method for implementing general packet radio services over GSM.

The Galyas (US#6,687,226) is cited to show the base station subsystem and method for handling an increase in traffic volume that overloads a terrestrial link in an internet protocol network.

The Ramstrom et al. (US#5,960,004) is cited to show the modular application software for telecommunications exchanges for providing all end user services traffic handling and charging requirements of an applications type.

The Bergenwall et al. (US#6,292,891) is cited to show the method of connecting base station to cellular system.

The Amir et al. (US#6,711,166) is cited to show the system and method for packet network trunking.

The Chuah et al. (US#6,704,311) is cited to show the application level switching server for internet protocol based networks.

The Pecen et al. (US#6,529,525) is cited to show the method for supporting acknowledged transport layer protocols in GPRS/EDGE host application

The Pecen et al. (US#6,631,259) is cited to show the method for enabling receipt of a packet-switched page by a mobile station.

The Pecen et al. (US#6,493,559) is cited to show the method for receiving SMSCB message during GPRS/EDGE data transfer mode.



Art Unit: 2665

The Itakura et al. (US#6,157,946) is cited to show the communication system capable of providing user with picture meeting characteristics of user and terminal equipment and information providing device used for the same.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to M. Phan whose telephone number is (703)305-1029. The examiner can normally be reached on Mon - Fri from 6:30 to 3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu, can be reached on (703) 308-6602. The fax phone number for the organization where this application or proceeding is assigned is (703)305-3988.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

7. *Any response to this action should be mailed to:*

Commissioner of Patents and Trademarks: Washington, D.C. 20231

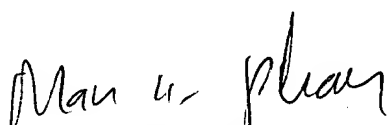
or faxed to: (703) 305-9051, (for formal communications intended for entry)

Or: (703) 305-3988 (for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2021 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

Mphan

07/06/2004.

  
MAN PHAN  
PATENT EXAMINER